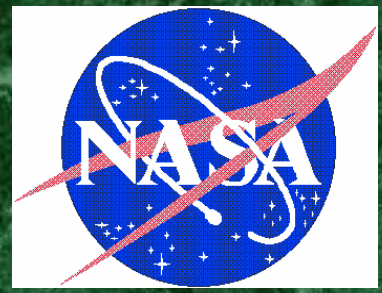


NExTNAS CNS Workshop FAA/NASA IAIPT Overview

August 20, 2003

IAIPT Mission

Plan and conduct integrated FAA/NASA air traffic management research and development leading to implementation of operational concepts and associated decision support tools, which will enhance the safety, efficiency, and flexibility of the operations for the current and future NAS.

ATM encompasses air-based and ground-based air traffic control and traffic flow management decision-support tools and procedures.

IAIPT Goals

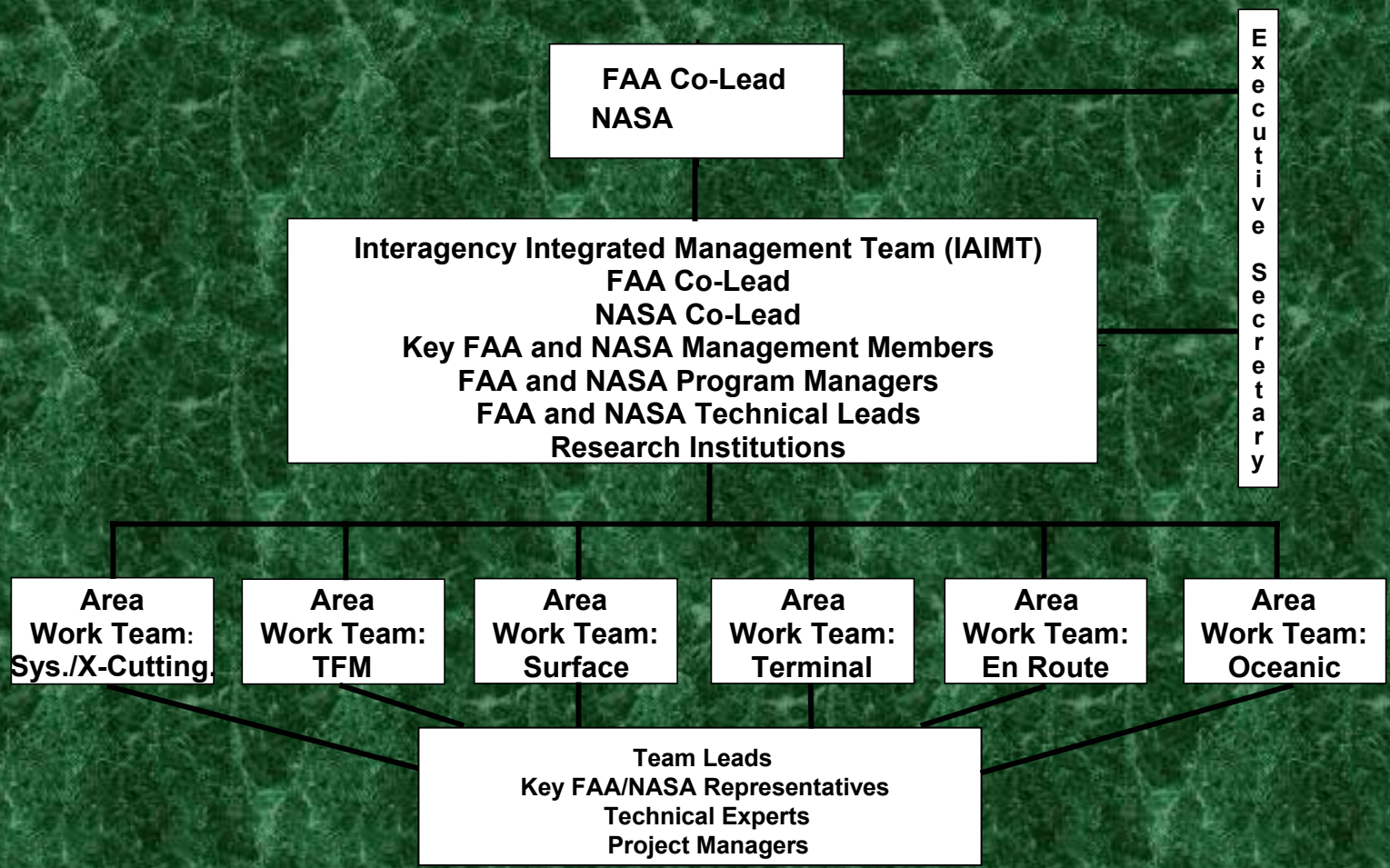
The FAA and NASA, in alliance, to research and develop near- and long-term technologies to effect increases in capacity, flexibility and efficiency, while maintaining safety, of aircraft operations within the U.S. and global airspace system.

Background

September 11, 1995, the FAA and NASA reconfirmed their partnership by signing an MoU on Airspace System User Operational Flexibility and Productivity to plan and conduct integrated ATM R&D to enhance the safety, efficiency, and flexibility of the current and future NAS.

IAIPT Organization

Interagency ATM Integrated Product Team (IAIPT)



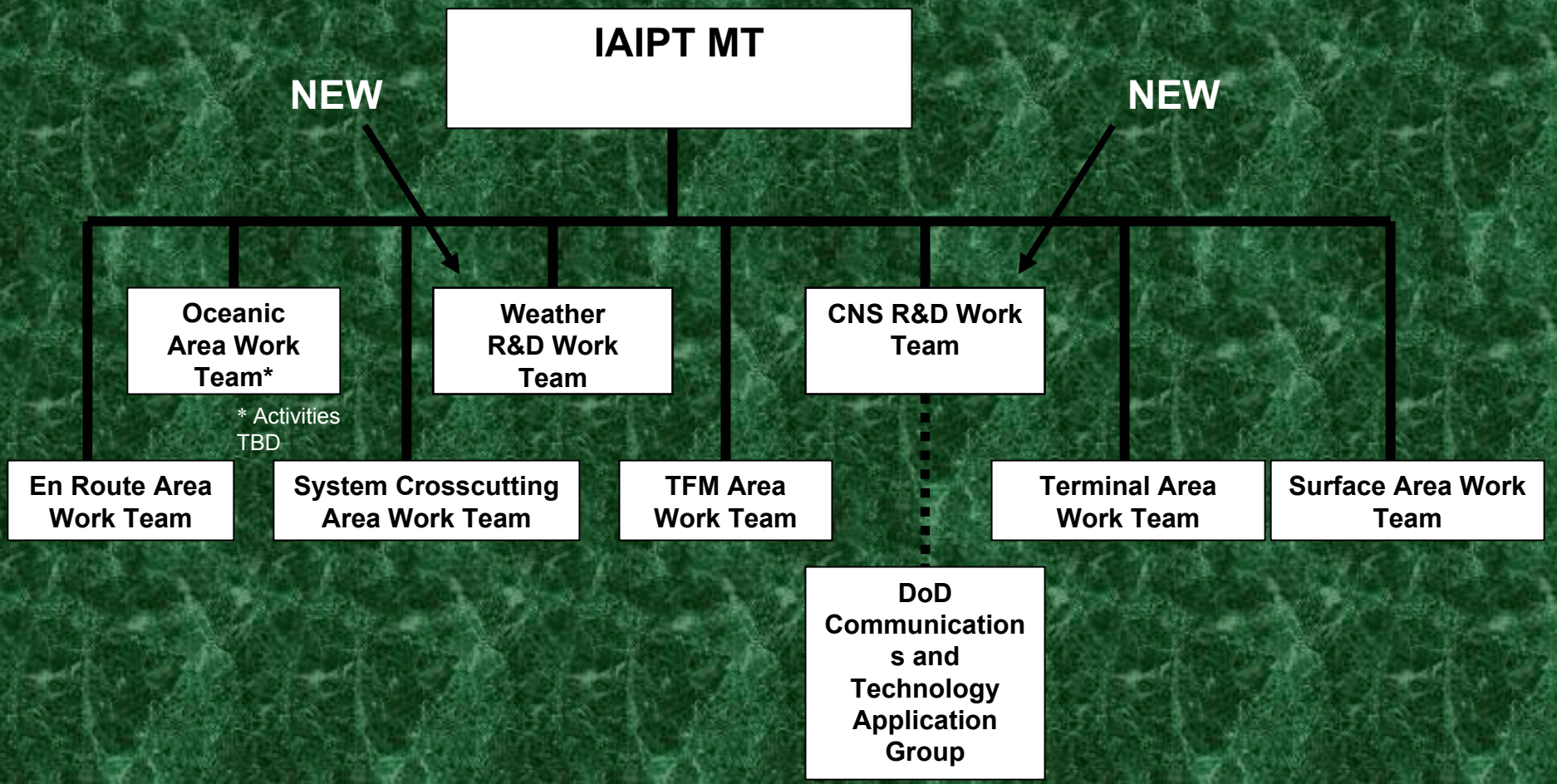
Present IAIPT Structure

IAIPT MT

FAA/NASA/CAASD/ MITLL/Volpe

System Crosscutting Area Work Team	Oceanic Area Work Team(presently under review)	Surface Area Work Team	Terminal Area Work Team	En Route Area Work Team	TFM Area Work Team
• ATM Advanced Concepts and Exploration • Human Factors • ETC		• Surface Management System • Gate-to-gate integration SMS Tools • ETC	• TMA Adaptation in Complex Airspace • RNAV Terminal Routing • Expedite Departure Path Tool • ETC	• PARR • D2 • En Route Descent Advisor • ETC	• Collaborative Decision Making • Enhance Data Exchange • Arrival and Departure Mgt. • Congestion Mgt. • ETC

Bringing in CNS and Weather



Possible Candidate ATM/Wx Activities

- URET/PARR traffic resolution around NCWF
- Incorporate Convective WX into CTAS
- Probabilistic WX forecast and demand
- FACET AOC with CIWS
- Integrate RAPT with the Surface Management System
- Effective Capacity Limits with respect to WX
  - Routes
  - Sectors
- And others

Possible Candidate CNS Activities

- Global Aviation Network & Space-Based Surveillance: FAA's Global Communication Navigation Surveillance System program lead by AND-500 (J. Loynes)

- Oceanic/Remote Communications and Surveillance: The HITS tested MLAT in the Gulf of Mexico

Possible Candidate CNS Activities (cont.)

- Multi-Function Multi-Mode Digital Avionics & Surface ICNS Network: East Coast Deployment of ADS-B Ground Based Transceiver network for transmission of weather and traffic information. (P. Fontaine)

- Terminal Area Communications: Wide Area MLAT installation in Juneau

- DOD Communications & Technology Group: Assess DOD technology for its application to civilian use and coordinate communications research

Additional Emerging Activities

- Through the Joint Program Office (JPO), "the FAA is actively working with DOD, TSA, NASA, Commerce, and other agencies to develop a shared view of the aviation system of the future."
- The JPO is examining how research conducted under its auspices will be tracked and managed. The IAIPT is one possible means the JPO might use.
- Operational Evolution Plan research activities will be identified in the next version of the OEP. Those activities will be tracked via the IAIPT.

Next Steps

- Restructure IAIPT in order to efficiently accommodate new areas of responsibility
- Stage introduction of Weather and CNS research into IAIPT
- Await developments with respect to working with the JPO

Last Thoughts

THREE THINGS NOT TO SAY TO A COP:

1. Aren't you the guy from the Village People?

2. You aren't going to check in my trunk, are you?

3. When the officer says, "your eyes look red, have you been drinking?" Don't respond by saying, "Gee Officer, your eyes look glazed, have you been eating doughnuts?"